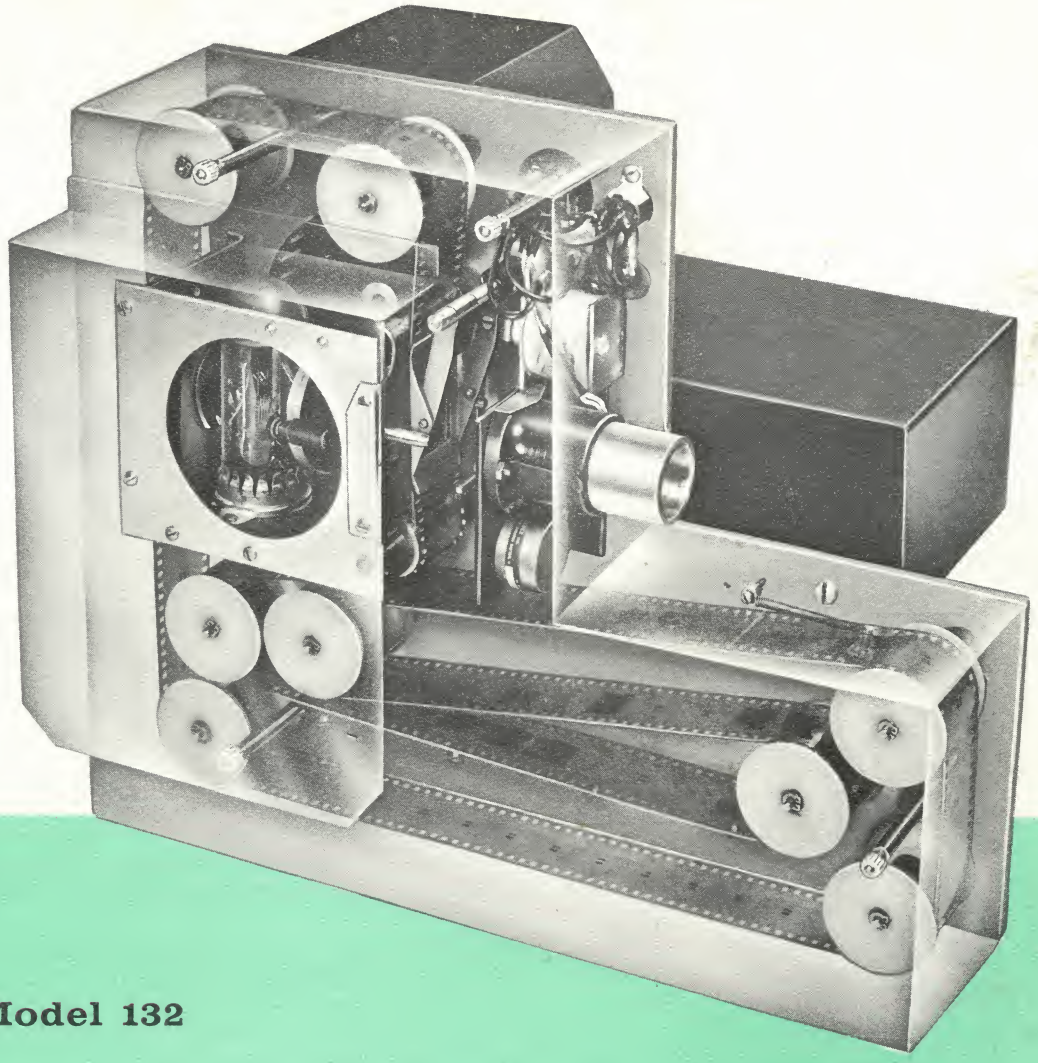


RAP Model 132

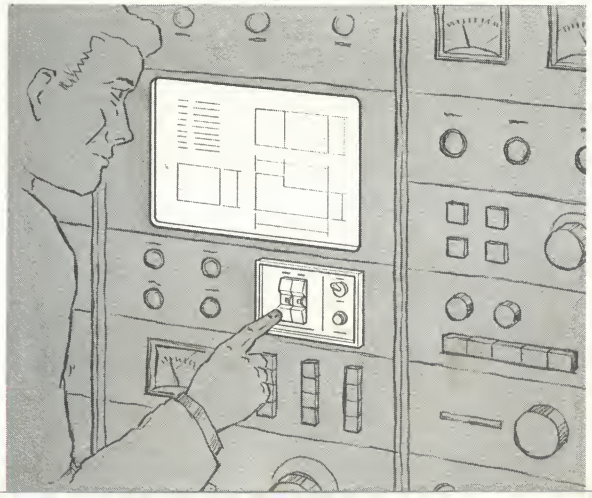
Random Access Projector

The RAP 132 automatically finds, precisely positions, and projects upon command any one of 100 frames of 35mm film strip within 3.5 seconds. Film movement to an adjacent frame requires only 0.25 second. The film strip, in color or black and white, is formed in a continuous loop. The desired frame is positioned in the aperture with an accuracy of ± .010″. The 5/8″ x 15/16″ film frame can carry extensive textual data, schematics, or pictorial information.

The RAP 132 is commanded from two ten-position rotary switches or, alternatively, from a two column keyboard — for frames 00 to 99.

Custom-built models are available for greater frame capacity, higher speeds, more precise registration, special optical systems, and special input systems (including octal).

Essential data is never more than a few seconds away from your fingertips.



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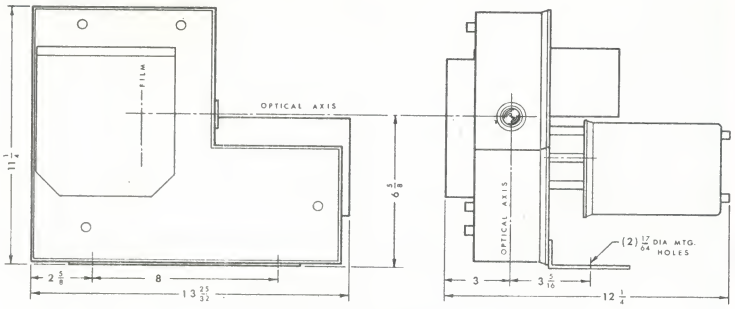
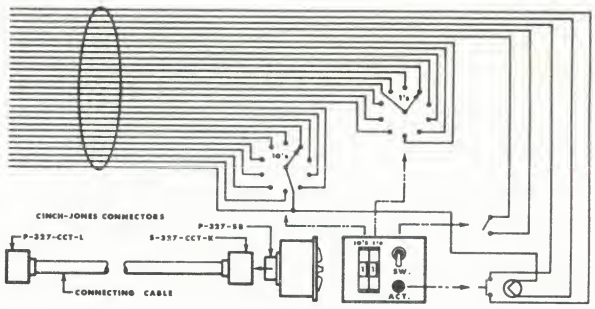
Phone (Area Code 319) 323-9729



PROJECTOR DIMENSIONS



CONTROL SYSTEM

The RAP 132 consists of a specially designed projector driven by a novel digital servo*. The RAP is approximately one cubic foot in size. Its weight, without the control unit, is 19 pounds.

The projector uses standard projection lamps from 100W to 300W. A 300W lamp used with a 2¼" lens produces a brilliant 33" x 50" picture, an enlargement of about 53X at a 10' throw. Long life lamps are available up to 300 hours.

The projector is blower cooled and has a highly efficient optical condenser with heat filter.

The film loop is supported by freely turning idler rollers that contact the film outside the picture area, and is driven by a single precision-cut sprocket. During projection a pressure plate holds the film in focus in the aperture. Before the film starts to move, the light is masked off and the pressure plate is lifted so that the film runs free of contact with the aperture plates, assuring thousands of scratch-free operations. The projector is covered to guard the film from dust.

The unique digital servo drive of the RAP 132 has been designed and extensively tested for long dependable life. Use of transistorized circuitry eliminates all sparking or metal transfer at the sensitive commutator drums, which are the heart of the servo. One of a pair of commutator drums performs "units" location and a second performs "tens" location with a repeat accuracy at the output shaft of $\pm \frac{1}{3}°$.

To locate, each drum is commanded by a low voltage circuit closure to one of ten brush positions. Through the transistor circuitry the drums "instruct" the motor to drive either forward or backward to make the faster approach to the selected frame number. This "short-way-home" feature cuts the maximum cycle time to half. Upon reaching the desired frame, the drum instructs the motor to stop. As the motor stops, pawls position the selected film frame rigidly, the film gate closes, while a slip clutch frees the system from the inertial load of the motor. The entire circuit is de-energized at the completion of a location cycle; hence, power interruptions cannot cause hunting or unwanted frame changes.

The RAP 132 has been life tested for 500,000 cycles under a wide range of severe environmental conditions. It has a life expectancy of several million operations.

Write us, giving details, if you have special applications or requirements for custom adaptations for the RAP 132.

*The digital servo, useful by itself for many position-control applications, may be separately purchased as OEM equipment. For information, request leaflet DS 1420.

SPECIFICATIONS FOR STANDARD RAP 132

- Film Capacity: ..... 100 frames of looped 35mm film strip
- Aperture: ..... Standard 35mm single frame, 5/8" x 15/16", ¾" center to center distance.
- Search and Location Time: ... 0.25 second to 3.50 seconds.
- Repeat Locating Accuracy: .. ± 0.010"
- Lens: ..... 2¼", f/3
- Lamp: ..... 300W, as required.
- Power Requirement: 360W
- Size: ..... 12¼" wide x 11¼" high x 13¾" deep.
- Weight: ..... 19 pounds

LAMPS FOR RAP 132

WATTAGE	MODEL NO.	LIFE
100	CDS	50 hours
150	CEW	25 hours
200	CGW	25 hours
300	CYF	300 hours
300	CYB & CYC	25 hours

SUGGESTED APPLICATIONS

SYSTEMS

- Remote Console Control Systems
- Overlay Projection on Cathode Ray Tubes
- Radar Clutter Plotting Systems
- Air Traffic Patterns

QUICK REFERENCE FILING

- Schematics & Circuit Diagrams
- Architectural Drawings
- Engineering Drawings
- Graphs and Charts
- Maps
- Catalog Pages
- Pictures
- Fingerprints

DISPLAYS

- Transportation Terminal Time Schedules
- Room Photos in Hotel and Motel Lobbies
- Product Exhibitions